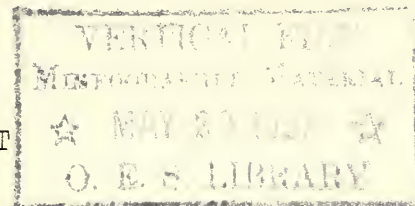


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Number 8.

April 1937.

C. P. Close, Senior Extension Horticulturist

#### 4-H Horticultural Club Work

In some of the States a very large amount of the most creditable 4-H club work in horticulture is being conducted. In other States the subject is receiving no attention. It would seem that with such crops as grapes, berries, vegetables, and flowers, there would really be a big demand among 4-H club boys and girls for a horticultural project. Many of the home agents are doing marvelous work in gardening, particularly with the girls. The garden stories which some of these girls write about experiences and results, fill us with wonder and admiration of such remarkable accomplishments. Many a home has been blessed with better and more abundant food as a result of the work of one little girl. The same is true of the efforts of many of the boys.

Among the millions of 4-H club boys and girls there ought to be many thousands who would eagerly take on a horticultural project with fruits, gardens, or flowers, if the matter were presented to them in a convincing manner. Of the 38 horticultural plans of work received up to April 15 only 23 mention club work.

\* \* \* \* \*

May the boys and girls have just enough clouds through life to make a beautiful sunset.

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United States Department of Agriculture  
Division of Cooperative Extension and  
Bureau of Plant Industry Cooperating

Reaching the Multitude (An Editorial)

Are we reaching enough people in our horticultural extension endeavors? We certainly are influencing a few hundred thousand, but there are many more hundreds of thousands who have not yet been benefited from contact with our State and county extension horticulturist.

It is, of course, mighty satisfactory to work with the big and near-big commercial growers, and there is also a lot of fun in working with the smaller, or very small ones- the "common people", or the under-privileged - so to speak. They vote and they pay taxes. The great Abraham Lincoln is reported to have said, "The Lord must have loved the common people because he made so many of them." In a recent conference of Federal extension specialists, Dr. C. B. Smith, assistant director, said in effect that we should work with all the people wherever they are; this did not exclude cities, or towns of more than 2,500 population.

Speaking of "common people" listen to this. The two most popular lines of horticultural extension are home gardening and home landscaping. These two lines are specialties with common people, and put all other lines away back in the shade. One State all by itself reports that 48,000 of its home-demonstration club people are doing home gardening.

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You will never get dizzy doing too many good turns. --  
Uncle Ezra.

\* \* \* \* \*

What Do You Think of This?

After all we have said and written about the desirability of having State maps in the plans of work, we surely thought every 1937 plan would have at least one. Up to date, April 17, 34 plans are in; 18 of them have maps, and 21 do not. As the little boy said, "Why do you don't want to put in a map?"

State Specialists

Colorado.

Mr. R. A. Bashor has been transferred to one of the counties as county agent.

Mr. W. M. Case has returned to the position vacated by Mr. R. A. Bashor.

New Hampshire.

Mr. S. E. Wilson is assistant specialist in horticulture and poultry.

North Dakota.

Mr. F. L. McMahon is now a county agent in Davison County, N. Dak. No one has been appointed to the State position.

Arkansas.

Professor Claude Woolsey has severed his connection with the Extension Service and has gone to the Resettlement Administration.

It would be helpful if some one in each State would advise us when specialists either begin or terminate service in State work. We should like to keep the list of State specialists complete and up to date.

\* \* \* \* \*

Make new friends, but keep the old; these are silver, those are gold.

\* \* \* \* \*

Sounds Awfully Good to Us

Here are a few extracts or requests from 1936 annual reports on how the Washington office can be or has been of help in the States.

Kansas. "A personal visit during the coming year by the Extension



Horticulturist, C. P. Close, would be appreciated by all three specialists. During past visits, Mr. Close has advised on the planning of programs, plans of work, and methods of procedure; and his visits have helped to keep the Kansas extension horticulturists in touch with horticultural extension work in other States.

"The publication, 'The Federal Extension Horticulturist' has been not only a bringer of news dealing with extension horticulture, but has also helped to make the work in this State seem more a part of the national program of work on these particular projects, and its continued publication is to our interest."

Louisiana. "We hope that C. P. Close can find time to come to Louisiana during the coming season so that he can tell us of the many new lines of horticultural extension work in hopes that we can improve ours."

New York. "Information on methods in floriculture and ornamental horticulture used in other States, such as have been given in the Federal Extension Horticulturist, are helpful. A regional conference of specialists in this field at which a discussion of problems and practices that have proved effective, and also those which have been ineffective, would avoid some experimentation, and would aid in the programs in this work."

\* \* \* \* \*

A little song of praise now and then is often enjoyed by the best of men.--  
Uncle Ezra.

\* \* \* \* \*

#### Memories of 1936

On the cover page of the Federal Extension Horticulturist dated October 15, 1936, and later referred to on page 4 of the December 1, 1936, issue, was an earnest request to every State horticultural specialist for a paragraph or two describing the most satisfactory piece of extension work or method used in 1936. The object of this request was twofold: First, to get together the outstanding accomplishments of 1936 to discuss at the Atlantic City extension meeting; and secondly, to mimeograph them and send to every horticultural State specialist. The State people are always asking "What are the others doing?" This was to be a partial 1936 answer to the query.

Of the 139 State horticultural specialists we hoped that at least 125 would respond. There really were only 32 responses, 27 of which follow. The other five, by A. J. Farley, J. Oskamp, John Ruef, W. B. Nissley, and C. H. Nissley were reported in the No. 7, January 15, 1937, issue because they were given in full at the Atlantic City conference in December last. But where are the other "ninety-and-nine" and 8 more who did not respond?

## Fruits

Massachusetts - W. H. Thies. During the past year we have been attempting, with some success, to demonstrate the relation of the subsoil to the behavior of apple trees. Our soils are extremely variable, and apple trees have been planted on all soil types. The result has been a wide difference in tree behavior even under similar cultural practices. Trees have varied greatly in yield, in size and quality of fruit, in certain leaf symptoms, in the amount of premature drop, and in such physiological troubles as bitter pit in Baldwin, and drought spot in Cortland and McIntosh. To focus attention upon this problem and to demonstrate soil moisture relationships, 70 trenches have been dug in 33 orchards. These trenches, dug for most part by the growers themselves, have given an insight into root distribution and water-holding capacity in at least 15 distinct soil types located in 8 of our 11 counties. This work is arousing a real interest in soil management, in the means of overcoming the handicap of an unfavorable soil, and in the choice of a favorable soil for the new orchard. Among other things, we are demonstrating the relation of the subsoil to the occurrence of certain leaf and fruit symptoms, thereby pointing the way to a more profitable handling of the orchard.

Another line of work which has required only a small amount of time is a cooperative variety-testing project. Scions of from one to six new and promising apple varieties have been distributed to about 125 growers for top-grafting purposes. By this method of testing, we hope to save considerable time in determining the adaptability of these newer varieties to our soils and climate. Within 5 years we shall be able to assemble a fairly extensive plate exhibit of such varieties as Kendall, Macoun, etc., for comparison with the same varieties grown in other sections. Thus we may be able to acquire in 10 years the same amount of information about these varieties as we did in the case of the McIntosh over a period of 50 years.

Massachusetts - W. R. Cole. Twelve years ago, cold storage for New England apples was possible only in the larger centers, as Boston, Worcester, Providence, Portland, Springfield, New York City. The total capacity available, not including New York, was about 1,600,000 bushels, and no more has been added in city points.

Country point cold storage has been created within the last twelve years with a total capacity of more than 1,800,000 bushels. Of this total, Massachusetts has 1,000,000-, and Connecticut about 500,000-bushels capacity. The real development continues to be in storages ranging from six to eight thousand up to fifteen to twenty-five thousand bushels capacity. There are two fruit storages with capacities of more than 40,000 bushels each intended to be used only by the owner. Some storages are new structures. Others have been created from air-cooled storages. Still others have been developed from old cellar holes. The great majority, however, have been created by remodeling existing structures, as barns, mills, warehouses, etc. Costs on new jobs have been from \$1.20 a bushel down to 60 cents a bushel and on remodeling jobs from 75 cents down to 35 cents a bushel.



Cold storage has moved to the country. This is all to the good because it means getting the apples to storage sooner after picking, less hauling between picking and storage, making possible greater adherence to the policy of pick-store-pack rather than pick-pack-store, keeping the fruit under direct control of the grower, and reducing storage costs.

Maryland - A. F. Vierheller. As a follow-up on the apple advertising plan, five grading and packing schools were held in some of the fruit-packing centers, and growers were asked to bring in some packed bushels to be graded. The packages were unpacked, and defects explained. It was found that none of the bushels brought in were over 3 percent in defects, although 10 percent defects were allowed. In most cases, the bushels were selected at random from the packing-house floor.

The second annual strawberry field meeting showed the growers the great benefits of spacing their strawberry plants, instead of using the old matted-row system. Although this system has been shown in Maryland for only 2 years, four prominent growers are using it; and it seems only a matter of a few years until it will be adopted by a great number of growers who were emphatic in their determination to change, after looking over the plots this year. It seems almost a miracle that two field meetings should cause such a quick change in an old established practice.

Michigan - H. D. Hootman. Apple growers are reaping benefit from the thin-wood method of apple-tree pruning. One Jonathan-apple grower whose largest previous crop had been 1,200 bushels harvested over 2,000 bushels this year after practicing thin wood pruning.

Illinois - V. W. Kelley. Irrigation is the next important step for some of our better strawberry and raspberry growers. The severe drought of 1936 greatly reduced production in most strawberry regions of the State, and this with the drought of 1934 has caused fruit growers to be conscious of the disastrous effects of water deficiency at critical periods. In the southern region one grower doubled production in 1936 by irrigation immediately before and during harvest.

In another region one grower will secure water from wells 10 to 15 feet deep in the patch, while another will build a small reservoir which will be filled by water from a spring.

Other irrigation projects include a strawberry patch in another region (surface method); a six-acre red raspberry patch irrigated by the ooze-hose method, the water coming from a large river nearby; and irrigation of 125 acres of summer apples by the furrow method, the water being supplied from a large reservoir formed by constructing a dam across a ravine. Mr. Hay, extension specialist in agricultural engineering, is cooperating in the project.

Kentucky - W. W. Magill. Strawberries worth over a million dollars a year are the big money fruit crop in Kentucky. More than one-half of the specialist's time is given to production and marketing of this one crop.



We have probably the oldest and largest (900 carloads in 1935) berry association of the country, namely, the McCracken Berry Growers' Association, which has over 4,000 members with more than 8,000 acres of commercial berries. This association is at least 15 years old and is in splendid condition with 99 percent of its members satisfied. Grade standard is maintained, which makes the berries from this organization sell at a premium on the northern and eastern markets, including Canada. The crown borer and grub worm are causing plenty of trouble, but are being pretty well controlled by soil building with green manure in advance of planting, emphasis on early spring setting of plants, and destroying old plants at the end of the second picking year.

Iowa - S. W. Edgecombe. We have continued our spray card service, demonstration meetings on pruning, spraying, and top working. The latter has been stressed because evidences of hardiness were observed where hardy, intermediate stocks were used. These observations were made throughout the entire State, and were so conclusive that many growers now feel that semi-hardy varieties should not be planted in Iowa unless they are top worked on hardy stocks. The thin-wood method of pruning apple orchards was stressed.

California - W. R. Schoonover. The Citrus Experiment Station has determined that the very serious citrus disease called "scaly bark" is caused by a virus which is transmitted by budding. Although the typical bark symptoms do not develop until the budded trees are 10 or 15 years old, the virus is present from the time of budding. On the basis of this work the extension service has started a project on the production of better citrus nursery trees, particularly of trees free of scaly bark. This project has been presented to the Southern California nurserymen's associations and has been favorably received. Extension training schools for nurserymen have been held in three counties. Nurserymen were shown how to recognize the symptoms of the disease and were aided in selecting parent trees free from the disease. The point was stressed that the disease is spread by taking buds from trees supposed to be healthy when they really had the disease but did not show the symptoms. The Southern California Citrus Nurserymen's Association has recently taken steps for having the nursery department of the State Department of Agriculture work out a service for certification of parent citrus trees to be used as sources of budwood.

Arkansas - Claude Woolsey. Home orchard work was done in every county of the State. Fruit trees were bought cooperatively, in many cases at a great saving. Two hundred ninety-one local leaders worked with tree fruits, 309 with bush fruits, and 123 with grapes. There were 643 result demonstrations with tree fruits and 344 with small fruits.

Some work was done in home beautification in 1,769 communities by 1,643 local leaders. Adult result demonstrations numbered 3,943 and demonstration meetings 1,156. The 5-year community landscaping contest is carried by 201 communities. Some improvement is being done on 2,105 miles of highways.

There were 2,234 communities with 1,956 local leaders working on the home-garden project. They held 1,812 method demonstrations. There were also 162 4-H boys and 8,523 4-H girls doing home gardening, and 5,026 of them completed their projects.

Idaho - E. R. Bennett. Still working to improve old-time methods of potato culture and introduce new ones for higher yields, better quality, and more profits. We believe that though such results are not spectacular, this system is having its effect on the industry in that the average yields are year by year growing better. In other words, the number of unsuccessful growers is becoming less.

The same principle governing the potato work applies to my other pet project, improving the country home, that is, by everlastingly keeping before our homemakers the picture of their home places as they might be if plans were carefully thought out and planting done accordingly. All this is hard to measure in terms of accomplishments, but we find homemakers are thinking of the problem more in terms of these possible pictures.

Wyoming - W. O. Edmondson. Gardening has received greater emphasis because farmers realize that the garden is the source of principal foods for the table throughout the year. Many vegetables that have not been generally grown before were used, such as chinese cabbage, broccoli, kale, brussels sprouts, swiss chard, and endive.

Beautification of yards by the planting of trees, flowers, and shrubs has gone forward with rapid strides. The yard-improvement program conducted on the Willwood Irrigation Project south of Powell is gaining more in popularity every year. Out of the 45 farms entered in the program during the past 4 years, 36 have already established lawns. This is a difficult proposition in itself because the only means of watering the new lawn is by flood irrigation. The cooperators are also planting trees for shelterbelts, shrubs, and trees in their yards, and fruit trees, so that now the project is much prettier, and the individual homes are becoming more livable and attractive. The good results attained on this project are attributed to the untiring interest and counsel given by the local project leader who cooperates at all times with the extension service.

### Vegetables

Rhode Island - G. B. Durham. Further demonstration work with red oxide of copper dust at the rate of one ounce of dust to one pound of seed, gave a gain up to 300 percent increase in spring and fall spinach under ordinary field conditions. When more lime was used, the increased yield of treated compared with untreated seed reached nearly 500 percent.

In tomato-training methods, staked tomatoes pay in some localities in the State, but the method of ground pruning as practiced by one grower on 8-1/2 acres of land gave an 800-percent-plus increase in early yield over staked plants of the same variety, Station Comet. This method consists



of planting partially hardened plants 3 to 3-1/2 feet apart in rows, using 5-10-5 fertilizer at the rate of two tons per acre, and pruning the plant to two laterals parallel with the rows. Pruning every week, even during picking time, gave the best results. At no time did the fruits give evidence of sunscald as is common on staked plants. Fruits matured earlier with this method, and brought premium prices.

New York - E. V. Hardenburg. Mechanical injury of various types, such as careless digging and subsequent handling, is not only common but serious in most stocks of potatoes sold in this country. During the harvest seasons of 1931 and 1932, field studies of tuber defects were made on 238 farms in 15 counties. There was over 13 percent of mechanical injury in the digging, and 9 percent of this was by bruising. The survey showed clearly that most of this injury was due to (1) too little soil carried on the digger chain, (2) too much speed and agitation of the digger chain, and (3) too much drop from the elevator onto the rear attachment.

Subsequently, a study in the Cleveland potato market was made by the New York State College of Agriculture in March 1936. Analyses of 143 samples from 7 States showed that only 11 percent graded No. 1 or better, while over 40 percent graded culls. Bruising alone was responsible for 42.7 percent of the defects. As a result of this survey, potato-digging demonstrations were held in the fall of 1936.

Circular letters calling attention to the seriousness of the problem and the economy involved in conserving market quality were sent to the county agents in all potato counties. Demonstrations were held on 10 farms in 5 counties and attended by 287 farmers. In each county the agent publicized the meetings well and had at least two different makes of diggers available. The procedure was usually as follows: First, results of the field surveys of 1931 and 1932 were reviewed to show the nature of the problem and the importance of doing something to solve it. Second, the prevalence of mechanical injury in the potatoes bought by the consumer in Cleveland was pointed out. Then followed a discussion by a representative of the Department of Agricultural Engineering of various ways of adjusting, padding, equipping, and operating the diggers so as to reduce bruising to a minimum. Each digger was then operated in various ways, and counts of mechanical injuries were made as a measure of results. Without exception, injury was reduced as a result of the adjustment made. Among the comparisons made were these: Continuous apron with rear attachment, padding of shaker bars with no padding, high and intermediate speed with slow speed, digger point set deep with some set shallow, rear apron with and without outside rear-drive chain, loose chain with tight chain, digger equipped with and without agitators. The effectiveness of these demonstrations was enhanced by the fact that in every case it was possible to reduce tuber injury without additional cost to the grower and with whatever make of digger he now operates.

Virginia - L. B. Dietrick. For the fifth consecutive year the Vegetable Extension Service has cooperated with the Agricultural Economics Department and tomato growers in the keeping of tomato cost account records.

Starting with 63 cooperators in 1932, the number increased to 154 in 1933, to 211 in 1934, to 297 in 1935, and to over 300 in 1936. The records are summarized at the end of each season and presented to the growers in outlook meetings in the spring of each year. Fifty-six such meetings were held in 1936 with a total attendance of 1,399.

In order to impress the importance of proper cultural practices on the growers' minds, not only the average production costs and returns are presented, but the figures for each county are broken down for the five high and the five low growers, and comparisons made between these groups. These records, serving as a background, have done more to influence the adoption of improved practices by tomato growers than any other line of work in the tomato project.

Louisiana - J. G. Richard. It is a foregone conclusion that the greatest need for our South Louisiana mixed-vegetable industry is better adapted varieties and strains of the various vegetable crops. With this problem in mind we have set out to introduce the Louisiana Experiment Station developed strains and varieties. This has been rapidly done by use of 117 demonstration plantings of Louisiana Copenhagen cabbage, Louisiana Danvers carrot, and Louisiana white shallot.

Growers of Rapides and Avoyelles Parishes produced 122,000 pounds of seed shallots in the spring of 1936. These shallots were sold to growers in the South Louisiana winter-mixed vegetable area as seed for their 1936 fall and winter crop. Diseases (primarily pink root) make it impractical for South Louisiana growers to produce their own seed as they have done in the past. This shift of source of supply for seed shallots is the result of demonstration plantings in the fall of 1935. The South Louisiana area is at present the only source of green shallot supply in the United States.

Mississippi - H. M. McKay. In 1934 the vegetable-garden contest was modified, placing the competition between garden leaders. Each county has a vegetable garden leader for each community. Records are kept on the efficiency of that leader's garden and on the efficiency of the individual as a leader among other garden growers. The contest has grown in popularity. During the season just closing there were 586 vegetable-garden leaders in the contest, involving 50 counties.

Iowa - C. L. Fitch. Lines of work for commercial vegetable growers that we have mentioned before continue to be of prime importance. However, in 1936 we have taken particular interest in the determination of available fertilizer residues on muck soils. We have been able, for instance, to show one big grower that his fertilizer policy has been too liberal; another, who is improving his spraying and rotation practices, that he should increase his fertilizer application; and a tenant, compelled to move away from scabby lands, that he was leaving behind him about \$10 per acre in available fertilizer.

Nebraska - T. H. Hankins. Careful harvesting of potatoes pays big



dividends. The two big factors in potato harvesting are the operation of the digger and the picking method. This was verified at a harvesting demonstration in Kimball County on October 2, 1936.

The potato crop was about 250 sacks per acre on 30 acres. There was 25 percent digger injury before the digger was adjusted. After the digger had been adjusted and the speed regulated there was only 10 percent of injury. The elimination of 15 percent of injury meant a saving of \$1,080 compared with a loss of 25 percent of injury.

A potato-picking contest lasting 15 minutes was held in connection with the harvesting demonstration. All contestants used picking sacks except one who used a basket. The winner using a sack picked 1,152 pounds, and the man using a basket picked 771 pounds. The potatoes that were picked directly into the sack were not cracked or feathered, while those picked into the basket showed 10 percent of injury.

North Dakota - Victor Lundeen. During 1936, 36 weekly radio talks were prepared and were broadcast over two North Dakota stations. The subjects covered were of timely interest and applied to North Dakota conditions. Favorable response was received in regard to several of the broadcasts and requests were received for copies of the talks given.

The effectiveness of these radio talks was well demonstrated by a single broadcast on the subject of "Tomato Varieties." Improved tomato varieties developed for North Dakota planting were discussed and a free trial packet of seed was offered to North Dakota listeners who reported having heard the program. More than 300 reports were received in response to this talk. Cards and letters came from six States and three Canadian provinces, demonstrating the wide range and large potential audience of radio.

#### Landscape Work

New Jersey - R. B. Farnham. Some 300 cases a year answering trouble calls among commercial florists are attended to from this office. The majority of these troubles are connected with nutritional disturbances. From the results of such experiences a body of information included in case records is accumulating. This information is to be used in monthly releases on nutritional subjects to other extension workers and the florists. It is also used in the formulation of research projects at the New Jersey Agricultural Experiment Station.

The organization of the "All Jersey Florists' Convention Day in College" held each fall at the New Jersey Agricultural Experiment Station and Rutgers University, is combined in a program of florist meetings with a series of county meetings held during the winter and spring. At this last year's fall convention an attendance of over 950 people from 18 States was registered, making this the largest educational meeting of florists sponsored by any university or experiment station. This meeting is entirely self-supporting. During 1935-36 seven county meetings for florists were held with an attendance ranging from 25 to 200.

Pennsylvania - A. O. Rasmussen. During the past 6 years the specialist and members of the resident staff have made an effort to bring together representatives of all groups of garden clubs in Pennsylvania to some centrally located point for the purpose of exchanging ideas. In June 1935, the first of the Annual Garden Days conference was held on the campus of the Pennsylvania State College. The second one, lasting 3 days, was held in October 1936. On the first day, technical discussions were held for the benefit of the professional gardeners; on the second and third days, discussions of problems in which the audience was interested were conducted. A questionnaire with about 25 topics for discussion had previously been sent out to each garden club to choose the subjects its members were interested in. When these questionnaires were returned, a conference was held at the College with members of the executive committee responsible for the final program. More than 175 persons affiliated with garden organizations attended the conference. Additional conferences are now being planned as an annual event.

In 23 counties, 61 adult rural flower clubs with a membership of 2,034 have been organized. There are also 52 4-H clubs having an enrollment of 1,032 pursuing a study of flower growing over a 3-year period. General interest in improvement of community and home grounds is steadily increasing, and 547 meetings were held during the year.

Virginia - Mrs. Mary C. McBryde. One particular yard-improvement demonstration is especially pleasing because it shows an improvement that is both useful and attractive which any farm can achieve. It is the restoration of a typical old-fashioned country home to an outside state of service and beauty. It demonstrates grading and planting for soil retention, and ground gutters to keep the drip from the eaves out of the soft soil. It utilizes roof and surface drainage for plantings, has a fine lawn under forest trees and a well-placed driveway. Old chimney stones were used for walks and gutters, and large branches of privet for cuttings to make quick growth. Evergreen ground covers for winter were made of ivy, periwinkle, galax, evergreen phlox, candytuft, and ferns.

The following quotation is from a letter written by the owner: "My husband said, a few days ago, that he believes our yard improvement has added \$500 to the market value of the place. It cost so little besides our work that I feel it is the best investment we ever made. Using many native plants and our own granite rocks not only made the cost less, but kept the place so natural looking that it seems always to have looked as it does now."

South Carolina - Mrs. Dora D. Walker. "In developing our community centers, community houses have been erected and camps established with lakes, pools, summer houses, playgrounds, assembly halls, dormitories, and amphitheaters. Walks were laid out and the grounds all beautified with native blooming and evergreen trees as well as shrubs and vines. The entrances to these centers are designated by magnificent portals.

After the first center in each of Chesterfield and Union Counties was completed and celebrated in pageantry, the community spirit became



contagious, and this year Chesterfield County added four more spacious centers which are revolutionizing the activities of community life. There are now 57 community centers in the State, and the good work continues.

These community centers, which include beautiful home grounds, school and church grounds, parks and highways, are proving a great factor in bringing people together, making concrete their aims and purposes for the better development of rural community life by creating a reformation in social, civic, economic, religious, and educational conditions, and proving a magnet of social attractions as assembly ground for the entire community on which to stage farmers' meetings, school festivities, church society organizations, club meetings and club short courses.

Response to the plea for attractive surroundings gives evidence in the State of 812½ miles of beautified highway, 827 rural church grounds, 817 school grounds and 21,786 rural home grounds beautified.

Indiana - R. B. Hull. Marked results were realized during the year in the school-grounds-development project. This activity has been encouraged in connection with the home-grounds-development work in the past years. The W.P.A. has been utilized rather extensively, the landscape extension specialist furnishing estimates of work, quantities, materials, and outlining the work to be done as a means of enabling the school authorities to secure the allocation of funds. Many school grounds have been enlarged for better playground facilities.

In the home-grounds-development project the "plan study conference" has become an annual enterprise in counties having an organized landscape extension project. Measured drawings are studied with home owners (several members of each family are urged to attend) in forming rough plans for a development program. This device makes it possible to render some personal service to an interested and active group in the county. This group becomes a permanent organization in time and is the basis for follow-up work. From 5 to 20 new families are added each year. The plan-study conference is held during the winter. Some 236 measured drawings were studied during the year.

Wisconsin - F. A. Aust. Landscape garden clinics are conducted usually through garden-club memberships. The garden club is held responsible for organization and enrollment for the clinic. Enrollment is usually limited to 25. After the organization is completed, the specialist meets with the group once a week for 4 weeks. Each one who enrolls is obligated to attend the afternoon sessions. The morning sessions are usually optional and are of an exploratory nature. In the forenoon those gardens are visited which are probable subject-matter for the clinics in the afternoon. The afternoon session consists of a discussion period of one hour and then a tour of three or four gardens, or as many as time will permit. The principles discussed immediately before are applied to the analyses of the gardens visited.

In the evening there is an illustrated lecture open to all members of the club and to others interested. This lecture carries the influence

of the garden club members into community activities, such as junior garden clubs, park work, school grounds, and street tree management.

The discussion outline which was used this last season follows:

First Week - Garden design in relation to the home grounds. Special emphasis was placed upon the replanting and reorganizing of materials and the simplification of home grounds planting. A start was made with the home grounds as it was, and the test of the basic principles of arrangement was applied. The importance of the design and the building of a garden were emphasized. The elements, such as trees, shrubs, and flowers in relation to design, were studied.

Second Week - Study of perennials and annuals for the home grounds. Special emphasis was given to color combinations and the arrangement of flower beds in the flower garden, and in relation to the entire home grounds.

Third Week - Special garden problems such as summer care of the lawn; fertilization of flowering plants, and kindred problems.

Fourth Week - Late summer and fall care of decorative plants, garden sanitation, remedial measures for the prevention of plant diseases and insects, fall pruning of shrubs, transplanting of shrubs and evergreens.

Wisconsin - L. G. Holmes. Our so-called "landscape schools", which we carry forward in a few selected counties during the 4 winter months, are giving us our best results in home-grounds improvement. The reason seems to be obvious; instead of having but 10 or 15 minutes of the specialist's time in a quick visit to the individual home, the home owner has contact with him for 2 hours once each month for 4 months. During the 8 hours he takes part in the discussion of the development of attractive home grounds, and draws up a plan of his own under supervision. This, of course, affords the specialist an opportunity to teach more about the trees, shrubs, and flowers that may be used, and it also gives the home owner a chance to think out his own problems and to solve them on the plan which he makes.

In the home-grounds-contest method, we get an accomplishment average of about 10 percent, but with this type of home-grounds improvement we are getting an accomplishment average of nearly 100 percent. I believe that the greater percentage of returns for our effort should be the goal to strive for in this work.

Texas - Miss Sadie Hatfield. One of the most valuable phases of yard-improvement work done during 1935 and 1936 has been an improvement in plans. In 1935 the extension specialist succeeded in getting 98 percent of the counties carrying yard-improvement work to make plans which designated goals for club members for at least 3 years' work. In 1936 it was assumed by the specialist and district agents that this long-time plan was the first essential step toward beginning yard work. After the county home agent and the program committee for the clubs of a county have made a tentative plan, it is submitted to the specialist and the district agent



for suggestions and checking. Then it is returned to the home agent. A copy of the final form is filed in the office of the home agent, the district agent, and the State specialist. This plan is used when reading monthly and annual reports and checking yearbook plans. Growing shrubs and trees from cuttings and seed is generally a first-year goal. At the beginning of 1936, the home demonstration club members had a total of 133,246 shrubs and trees thus propagated for planting in their yards.

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The knowledge of mankind is advanced by the investigator, but he is not always the best interpreter of his discoveries.--Glenn Frank.

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### Horticultural Scientific Publications

#### Received During January 1937.

Georgia	Georgia State College of Agriculture, Athens. Bunch grapes in North Georgia. Sta. circ. 112, 1937.
Maryland	University of Maryland, College Park. The corn ear worm. Sta. bull. 399, 1936. The vinegar gnats or pomace flies, their relation to the canning of tomatoes. Sta. bull. 400, 1936.
New York	New York State College of Agriculture, Ithaca. The biology of the apple curculio ( <u>Tachypterellus quad-</u> <u>rigibbus</u> Say). Sta. tech. bull. 240, 1936.
Ohio	Ohio Agricultural Experiment Station, Wooster. Soil-management systems in a young Bartlett Pear orchard. Sta. bull. 578, 1936.
Pennsylvania	Pennsylvania State College, State College. The tomato pin worm ( <u>Gnorimoschema lycopersicella</u> Busck). Sta. bull. 337, 1936. Methods of heating hotbeds. Sta. bull. 338, 1936.
Texas	Texas Agricultural Expt. Station, College Station. A rating of plants with reference to their relative resistance or susceptibility to <u>Phymatotrichum</u> root rot. Sta. bull. 527, 1936.

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NOTE: When inquiring about publications BE SURE TO GIVE FULL REFERENCE. State extension publications are not available for distribution by the Department of Agriculture but should be requested from the State agricultural colleges issuing them.

Utah                      Utah State Agricultural College, Logan.  
                            Influence of rotation and manure on the nitrogen, phosphorus, and carbon of the soil. Sta. bull. 274, 1936.

Received During February 1937.

California              College of Agriculture, Berkeley.  
                            Ornamental flowering plants experimentally infected with curly top. Hilgardia. Vol. 10, no. 9, 1936.  
                            The herbicidal properties of boron compounds. Hilgardia. Vol. 10, no. 10, 1936.  
                            Development of the flower and macrogametophyte of Allium cepa. Hilgardia. Vol. 10, no. 11, 1936.

Louisiana              Louisiana State University, Baton Rouge.  
                            Sweetpotato production in Louisiana. Sta. bull. 281, 1936.  
                            Diseases of tung trees in Louisiana. Sta. bull. 282, 1937.

Michigan              Michigan State College of Agriculture, East Lansing.  
                            The "graduated space" method of thinning apples. Sta. spec. bull. 281, 1937.

Missouri              College of Agriculture, Columbia.  
                            Controlling borers in fruit, forest, and shade trees. Sta. bull. 373, 1936.

New Jersey              State College of Agriculture, New Brunswick.  
                            Some chemical constituents of apple associated with susceptibility to fire blight. Sta. bull. 613, 1936.

New York              New York State College of Agriculture, Ithaca.  
                            Soil and plant response to certain methods of potato cultivation. Sta. bull. 662, 1937.  
                            Influence of storage temperature and humidity on seed value of potatoes. Sta. bull. 663, 1937.  
                            Effect of soil reaction on growth, yield, and market quality of potatoes. Sta. bull. 664, 1937.

West Virginia          College of Agriculture, Morgantown.  
                            Charleston as a market for fruits and vegetables. Sta. bull. 270, 1937.

Received During March 1937.

Florida              Experiment Station, Gainesville.  
                            Cold-storage studies of Florida citrus fruits: II. Effect of various wrappers and temperatures on the preservation of citrus fruits in storage. Sta. bull. 304, 1936.

Illinois              College of Agriculture, Urbana.  
                            Grape pruning in Illinois. Sta. circ. 468, 1937.

Montana Montana State College of Agriculture, Bozeman.  
Wax emulsions for spraying nursery stock and other plant materials, a preliminary report. Sta. spec. bull. 282, 1937.

New Jersey State College of Agriculture, New Brunswick.  
Rhododendron wilt and root rot. Sta. bull. 615, 1937.

New York New York State College of Agriculture, Ithaca.  
Recent investigations on the control of cedar-apple rust in the Hudson Valley. Sta. bull. 678, 1937.

Texas A. & M. College of Texas, College Station.  
Tree fruit varieties in North Texas. Sta. bull. 535, 1936.

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It is a darn sight better for a fellow to stand up to a job than to sit down on it.

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#### Horticultural Extension Publications

#### Received During January 1937.

Arkansas 524 Post Office Building, Little Rock.  
Producing spinach and other leafy vegetables for market. Ext. circ. 190, rev., 1936.  
The family vegetable garden. Ext. circ. 304, rev., 1936.

Michigan Michigan State College, East Lansing.  
Corn borer control by good farming. Ext. bull. 59, rev., 1936.

Montana Montana State College of Agriculture, Bozeman.  
Selection of vegetables for exhibition purposes. Ext. circ. 77, 1936.

New Hampshire University of New Hampshire, Durham.  
Vegetables on parade. Ext. circ. 192, 1936.

North Carolina State College Station, Raleigh.  
Good gardening with plans for garden contests. Ext. folder 25, rev., 1936.

Utah Utah State Agricultural College, Logan.  
Drying of vegetables and fruits. Ext. circ. 87, new series, 1936.



Wisconsin      College of Agriculture, Madison.  
                  Outdoor flowers for the home. Ext. circ. 212, rev., 1936.  
                  Planning and planting the home grounds. Ext. circ. 253,  
                  rev. 1936.  
                  The farm windbreak, its planning and planting. Ext. circ.  
                  267, rev. 1936.

Received During February 1937.

New Jersey      State College of Agriculture, New Brunswick.  
4-H grounds improvement clubs. Ext. bull. 186, 1936.  
Weed-killing chemicals. Ext. bull. 187, 1936.

New York      New York State College of Agriculture, Ithaca.  
Farm management for fruit growers. Ext. bull. 355, 1936.  
Water supply for orchards. Ext. bull. 367, 1937.

Ohio      College of Agriculture, Columbus.  
The control of garden insects and diseases. Ext. bull.  
76, rev. 1936.  
Spraying program and pest control for fruit crops. Ext.  
bull. 128, rev. 1936.

Oklahoma      Oklahoma A. & M. College, Stillwater.  
Methods of growing strawberries, dewberries, and black-  
berries. Ext. circ. 133, rev. 1936.  
Orchard spray calendar. Ext. circ. 168, rev. 1936.

Received During March 1937.

California	College of Agriculture, Berkeley. Propagation of grape vines. Ext. circ. 101, 1937. Almond culture in California. Ext. circ. 103, 1937.
Florida	Experiment Station, Gainesville. Miscellaneous tropical and subtropical Florida fruits. Ext. bull. 85, 1936.
Georgia	Georgia State College of Agriculture, Athens. Grape culture in Georgia. Ext. circ. 265, 1936.
Illinois	College of Agriculture, Urbana. Grape pruning in Illinois. Ext. circ. 468, 1937.
Indiana	Purdue University, La Fayette. Strawberries for home and market. Ext. bull. 174, 2nd revision, 1936.
Maine	College of Agriculture, Orono. New methods of buying sweet corn for canning. Ext. bull. 235, 1937.



- Maryland            University of Maryland, College Park.  
                    Maryland spray calendar for apples and peaches. Ext.  
                    bull. 78, 1937.
- Minnesota          University Farm, St. Paul.  
                    Quality of Minnesota inspected potatoes. Minn. farm  
                    business notes, no. 171, 1937.
- New Jersey        State College of Agriculture, New Brunswick.  
                    Spraying recommendations for apples. Ext. bull. 188, 1937.  
                    Spraying recommendations for plums. Ext. bull. 189, 1937.  
                    Spraying recommendations for grapes. Ext. bull. 190, 1937.  
                    Spraying recommendations for cherries, Ext. bull. 191, 1937.  
                    Spraying recommendations for pears. Ext. bull. 192, 1937.  
                    Spraying recommendations for peaches, Ext. bull. 193, 1937.
- New York           New York State College of Agriculture, Ithaca.  
                    The retail handling of vegetables. Ext. bull. 368, 1936.  
                    Varieties of vegetables for 1937. Ext. bull. 370, 1937.
- Oregon             Oregon State Agricultural College, Corvallis.  
                    The control of mosses and lichens on fruit and other trees.  
                    Ext. bull. 498, 1937.

United States Department of Agriculture Publications\*

Published During January 1937.

The Houma potato: a new variety. Circ. 420. 5 cents.

Amendment of regulations governing the entry of potatoes into the United States, effective December 1, 1936. Q. potato regulations.

Modification of Mexican fruit-worm-quarantine regulations, effective November 16, 1936. Q. 64.

Published During February 1937.

Planting and care of street trees. F. B. 1209, rev. 5 cents.

Seed peas for the canner. F. B. 1253, rev. 5 cents.

The dasheen: a southern root crop for home use and market. F. B. 1396.  
10 cents.

Preparation of bunched beets, carrots, and turnips for market. F. B. 1594,  
rev. 5 cents.

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\*These publications may be purchased from the Superintendent of Documents,  
Washington, D. C.

The sweetpotato weevil and how to control it. Leaflet 121. Q. 5 cents.

Bud selection in Eureka and Lisbon lemons and progeny tests of bud variations.  
T. B. 531. 10 cents.

Parasites and predators of the Mexican bean beetle in the United States.  
Circ. 418. Q. 5 cents.

Published During March 1937.

Preparation of fresh tomatoes for market. F. B. 1291, rev. 5 cents.

Diseases and insects of garden vegetables. F. B. 1381, rev. <sup>10 Cents</sup> (~~Out of print.~~)

Harvesting and handling citrus fruits in the Gulf States. F. B. 1763.  
5 cents.

A study of arsenical dusting of cabbage in relation to poison residues.  
Circ. 411. 5 cents.

Land-improvement measures in relation to possible control of the beet leaf-  
hopper and curly top. Circ. 416. 5 cents.

Market diseases of fruits and vegetables, peaches, plums, cherries, and  
other stone fruits. M. P. 228. 20 cents. (Restricted distribution by  
B. P. Q.)

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"A house though otherwise beautiful, if it hath no garden is more  
like a prison than a house."-William Coles (The Art of Simpling, 1656).

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\*Circ. = Circular; Q = Entomology and plant quarantine; F. B. = Farmers' bulletin; T. B. = Technical bulletin; M. P. = Miscellaneous publication.